

# Weining Li

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## Education

September 2023–PRESENT

**MSc, Biochemistry and Molecular Biology (Expected)**, Sun Yat-sen University, China

- **Relevant coursework:**  
Cellular and Molecular Immunology (90/100), Topics in Cell Signaling (97/100), Physiology of Epithelial Cells (97/100), Experimental Design and Statistical Analysis (94/100), etc.

September 2019–July 2023

**BSc, Biotechnology**, Sun Yat-sen University, China

- Graduated with **First Class Honors (GPA 3.9/4.0)**
- **Dissertation:** “Functional Screening and Mechanistic Studies of the Palmitoyl Transferase zDHHC Family in Regulating Autophagy”
- **Relevant coursework:**  
Biochemistry (95/100), Cell Biology (93/100), Principles of Immunology (96/100), Experiments of Biochemistry (94/100), Experiments of Cell Biology (94/100), Experimental Skills in Molecular Biology (94/100), Experiments of Immunology (97/100), Comprehensive Experiments in Biotechnology (95/100), etc.

## Research Experience

July 2019–Present, Postgraduate and Undergraduate Student Researcher, Sun Yat-sen University

**Research theme:** The function and mechanism of palmitoylation in regulating autophagy

**Supervisor:** Professor Jun Cui

**Key Responsibilities:**

- Functional screening of the palmitoyl transferase zDHHC family in autophagy regulation
- Identified zDHHC5 as a positive regulator of autophagy and found that zDHHC5 functions in the initial stage
- Screened target ATG proteins of zDHHC5 and found that zDHHC5 palmitoylates ATG9A at two key cysteine residues
- Investigated the function of ATG9A palmitoylation (stability, complex assembly, localization, etc.) and indicated that palmitoylation influences its PI3P binding ability via conformational changes, as well as its trafficking by affecting its binding with the AP complex
- Confirmed that palmitoylation of ATG9A is crucial for its function in membrane expansion during autophagy initiation
- Investigated the psychological role of zDHHC5-mediated palmitoylation of ATG9A (autophagy-related disease, virus or bacterial infection, etc.)

## Publications

### **S-palmitoylation coordinates lipid-binding and trafficking of ATG9A to mediate autophagy initiation**

- Contribution: co-first author, listed second
- Expected Submission: EMBO J/Autophagy, September 2024

### **C24**

- Contribution: second author
- Expected Submission: EMBO J/Autophagy, September 2024

### **Palmitoylation of GPX4 determines ferroptosis sensitivity and anti-tumor immunity**

- Contribution: sixth author
- Nature Cancer, in submission

## Awards and Honors

### iGEM Awards

#### **Gold Prize, International Genetically Engineered Machine Competition, 2020**

- As a team member of team SYSU-Software
- Project: Maloadis (Machine Learning based Optimization and Automated Design Platform with Image Search)

#### **Silver Prize, International Genetically Engineered Machine Competition, 2021**

- As a student leader of team SYSU-Software
- Project: Phoebus (Platform for Highly automated Opto-controllable Elements design, Based on Universal Strategies)

### Scholarships

- First-Class Scholarship for Outstanding Students, Sun Yat-sen University, 2020
- Second-Class Scholarship for Outstanding Students, Sun Yat-sen University, 2019
- Master's Graduate First Prize Scholarship, Sun Yat-sen University, 2023-2024

## Skills

### **IT skills and Data Analysis**

- Proficient in Microsoft Office, SPSS, Graphpad Prism, ImageJ, Snapgene, Adobe Illustrator, Adobe Photoshop and familiar with R for data analysis.

### **Communication and Presentation Skills**

- Experienced in presentation and communication skills demonstrated through iGEM competitions and lab study.

### **Language**

- Mandarin (Native), Cantonese (Native), English (Fluent, IELTS 7.5).

## Personal

### **Characteristics**

- Warm-hearted and optimistic, adept at interpersonal skills, presentation and collaboration.

### **Miscellaneous**

- Love to play the piano and some kinds of chess (such as Go).
- Enjoy making crafts like building the Lego bricks and jigsaw puzzles.